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DETERMINANTS OF HOUSEHOLD EXPENDITURE ON HEALTH: EVIDENCE FROM NIGERIA

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ABSTRACT

Health has been a major issue in Nigeria and so occurs on the concurrent list of the government. Public and private health expenditure notwithstanding, ill-health has been identified as one of the factors responsible for counter productivity of citizens and poverty in Nigerian households. Healthcare delivery is poor and costly. Therefore, people often resort to self-medication as well as traditional means of healthcare, which has claimed the lives of many citizens. Hence, this study majorly examined the factors influencing household health expenditure in Nigeria. Secondary data was sourced from the Harmonized Nigeria Living Standard Survey (2010). Ordinary Least Square (OLS) technique was used to show the relationship between the dependent variable, household health expenditure and the explanatory variables: household size, sex and age of household head, marital status, zone, sector, consultation fees, hospitalization, medicine and health insurance. The result revealed that five out of the ten variables were statistically significant and positively related to health expenditure. These are household size, consultation fees, hospitalization, medicine and health insurance. Furthermore, about 54% of the households sampled, having between 1 and 4 members spent more on health. Hence, it was recommended that, the Nigerian government should increase allocation to health and promote public awareness on the need for a moderate family size, so that households will be able to cater for their health needs. Finally, awareness on the National Health Insurance Scheme (NHIS) should be increased and extended to all Nigerian citizens.

KEYWORDS

Household, health expenditure, public awareness, family size, NHIS

1. INTRODUCTION

Health issues in Nigeria are paramount on the concurrent legislative list of the Federal Constitution. Hence, the absolute responsibilities for it fall on the federal, state and local governments (Central Bank of Nigeria [CBN], 2000). The first national health policy was adopted in 1985, with a goal to bring about a comprehensive healthcare system that is based on primary healthcare, which is extensive, preventive, protective, restorative, rehabilitative and affordable to every citizen. It was

also to serve as a strategy to achieve health for all by the year 2000. Also, various strategies have been adopted to improve the health status of the people, particularly with respect to reducing infant and maternal mortality (Akande & Bello, 2002). However, health service delivery worsened in the early 1990s till date due to lack of appropriate financial commitment that resulted in shortage of drugs, vaccines and other essential medical equipment. Government had initially provided 'free healthcare' for its citizens funded by its earnings from oil exports and general tax revenue before the global slump in oil prices in the 1980s greatly affected Nigeria's major source of income. Government could therefore no longer afford to provide free healthcare for its citizens. They however, subsequently introduced several cost recovery mechanism like user charges and drugs revolving funds (Akande, Salaudeen & Babatunde, 2011).

Healthcare provision in Nigeria is the responsibility of the three tiers of government in the country and is structured such that, the Federal government's role is mostly limited to coordinating the affairs of the University Teaching Hospitals, Federal Medical Centres (tertiary health care) while the state government manages the various general hospitals (secondary health care) and the local government focuses on dispensaries (primary healthcare), which are regulated by the federal government through National Primary Healthcare Development Agency (Baba & Omotara, 2012). As at 2016, total expenditure on healthcare as a percentage of GDP stood at 0.7%, while the percentage of federal government expenditure on healthcare was about 9.2% (CBN, 2016).

Financing of health services by the public sector not only increases utilization of healthcare services in developing countries but also increases healthcare accessibility by the poor. The main asset of the poor is their labour and health services improve their productivity and earnings (Bloom, Canning & Sevilla, 2004). Thus, poor health reduces a household's capacity to earn income and accumulate wealth by limiting work, raising medical expenses and reducing savings (Sen, 1999). In spite of government spending, coupled with bilateral and multilateral assistance in the health sector, the health status in Nigeria grew worse than would be expected given Nigeria's GDP per-capita. Policy somersault tends to have undermined several reforms in the health sector over the years. Poor human resources and policy management have led to unprecedented brain drain in the health sector, as health professionals migrate abroad in search of better conditions of service (FMoH, 2005).

The Nigerian health system is in comatose, few hospitals with few drugs, inadequate and substandard technology and a lack of infrastructural support, including electricity, water and diagnostic laboratories resulting in misdiagnosis. Medical record keeping is rudimentary and diseases surveillance is very poor. Delivery of healthcare becomes a personal affair and dependent on ability to pay for basic laboratory and physician services. These have exacerbated disease burden in Nigeria (FMoH, 2005). The increasing out-of-pocket expenditure due to high disease burden on most poverty-stricken households has kept them in the vicious cycle of the poverty trap. Health Reform Foundation of Nigeria (HERFON, 2006) noted that risk pooling in the form of private and commercial health insurance is often lopsided, while the much touted social insurance is limited to those in government service. Therefore, the objectives of this study are to:

1. examine the pattern of household expenditure on health in Nigeria; and
2. determine the factors influencing household expenditure on health in Nigeria.

Health is the basis for job productivity, the capacity to learn in school, and the capability to grow intellectually, physically and emotionally. As with economic well-being of individual households, good health is a critical input into poverty reduction, economic growth and long-term economic development at the scale of whole societies (World Health Organisation [WHO], 2001). Many studies have been carried out on healthcare delivery at macro level by different researchers (Xu Ke & Holly, 2011; Baba & Omotara, 2012; Cosimo & Macro, 2012), while few studies have been done at micro level using household survey (Woottipong, 2001; Dhoro, Chidoko, Skuuni & Gwaindepi, 2011; Lavado, Brooks & Hanlon, 2013) for other countries. This study has contributed to knowledge in the area of methodology by examining the determinants of household expenditure on health; particularly in Nigeria by using household survey data. Furthermore, this study is relevant in the area of policy since it is country-specific. Following this introductory section is section two on review of empirical literature, section three deals with methodological issues, section four presents the result and discussion of findings, while section five concludes the study with policy implications and recommendations.

2. REVIEW OF EMPIRICAL LITERATURE

Woottipong (2001) assessed determinants of and inequality in household expenditure on healthcare in Thailand. The results showed that 71 percent of households had health expenditure in the 30 days before the survey. The average monthly healthcare expenditure of the households was 144.05 baht per capita. Almost half of the households (48 percent) were in the pattern of self-treatment only; one-third (33 percent) were in the pattern of receiving treatment in the private sector and/or health examination; and one–fifth (20 percent) were in the pattern of receiving treatment in the public sector. In another study carried out by Hjortsberg (2004), findings showed that health expenditures by Zambian households were influenced by the households' economic circumstances and access to healthcare facilities.

Bhabesh & Himanshu (2008) found that income of the household had significant influence on health expenditure in Urban Orissa. From the study, it was found that as disposable income of the household increases, individual takes more care of his life. Hence, health expenditure increases but at a particular level of income, due to 'high life risk (HLRP)', health expenditure becomes independent of income and perfectly elastic. Health expenditure during HLRP depends on household's past saving and loanable capacity. Dhoro, et al. 2011 investigated the main determinants of public healthcare expenditure in Zimbabwe. The empirical results showed that the key determinants in the explanation of the public health expenditure are real GDP, per-capita income, literacy rate, inflation and foreign health aid per-capita.

Furthermore, Oyekale (2012) assessed the factors influencing household's willingness to pay for National Health Insurance Scheme (NHIS) in Osun State, Nigeria. Results showed that majority of the respondents were either not falling sick or recording two time morbidity in three months. 36 percent of the respondents do not spend any amount on household health. Also, 49 percent were aware of the scheme and 63 percent expected the scheme to meet their household health service needs. Willingness to pay decreased significantly with household heads' age and frequency of falling sick, but increased significantly with awareness, expected workability and households' preference for pre-paid system. Also, Moses (2013) on investigating the determinants of health-

seeking behavior in Kenya found that family size was a very important factor influencing household health expenditure.

Lavado, Brooks & Hanlon (2013), estimated health expenditure shares from household surveys conducted for different countries. Data on total expenditure and health expenditure were extracted from the surveys to generate the health expenditure share (fraction of the household expenditure devoted to health). Findings were that one-unit increase in the number of health expenditure questions was accompanied by 1 unit increase in the estimated health expenditure share. A unit increase in the number of non-health expenditure questions resulted in 0.2 unit decrease in the estimated share.

Ilesanmi (2014) found education and settlement to be the main determinants of household health expenditure while age was insignificant. A more recent study, Olasehinde & Olaniyan (2017) found that age, religion, education, income as well as household size and headship were significant determinants of household health expenditure. In addition, the study noted that Nigeria engages in intergenerational transfer of healthcare from the working population to the older and younger generations. In yet another study, Mehrabi, Payandeh, Ghahroodi and Zayeri (2018) found that Iranian households spend about 7% of their annual income on health. The study further posited that household income, age and activity status of household head significantly and positively affect household expenditure on health.

Much of this work has taken its point of departure in Grossman's seminal work (1972), where he emphasizes health as a fundamental commodity, which implies that the demand for healthcare is a derived demand; in the model, individuals are both consumers and producers of health. The model predicts that an individual would invest in health until the marginal benefits equal its marginal cost. This equilibrium demand for health entails that the length of individual's life would be determined endogenously. The individual produces the commodity 'good health'. This commodity is part of the individual's human capital and affects the total amount of time the individual can spend on productive activities. Though Grossman provided the field of health economics with great input, it lacked the fact that individuals are household members and take much influence (willingly or not willingly) from other household members. Much speaks for using the household as the unit of analysis (some individuals do of course live in single person households).

Income and education is among the most influential factors for healthcare utilization (Grossman, 1972). However, other factors such as age also influence utilisation since age reflects on perceived benefit and income. There have been a number of studies showing relationship between household income and utilisation of healthcare (Grossman, 1972; Muurinen, 1982; Wagstaff, 1993; Bolin, Jacobson, Lindgren, 1999). However, all these have shown a relatively weak relationship, while studies on developing countries have shown that the income elasticity is rather high.

Utilisation of healthcare is in practice very much influenced by factors like decisions by the provider and physicians' advice. However, the first contact with the health system is taken by the individual and expected access cost is probably the largest determinant of seeking care. Access cost is a combination of several factors, which includes distance to health facilities, waiting time at the facility as well as out of pocket payments (LeGrand, 1982). These factors can be categorized as monetary costs as well as time costs. Time costs include time for reaching the facility, waiting time and time for consultation. Monetary costs include fees for services and travelling costs. Travel to

the health facility can be measured either as time or distance and can be used to analyse accessibility to healthcare. In Nigeria, where a large number of households live in rural areas, distance to healthcare facilities must be expected to be decisive factor for seeking healthcare or not. Costs of access are usually an important explanatory factor of differences in healthcare utilisation between different social groups in developing countries (Gertler & Van der Gaag, 1990; Timyan et al. 1993).

Studies on developed countries commonly focus on annual income as a proxy for a household's economic situation. However, Behrman & Deolalikar (1988) found household consumption to be the natural approximation of the household's economic circumstances in their analysis of decisions, which act as proximate determinants of individual health status. This fact is even more important to consider in a developing country context where annual income often is an inappropriate measure of economic circumstances due to subsistence farming, for example. Parker and Wong (1997) used household expenditure instead of income in their analysis of Mexican healthcare expenditure. In this study, we also chose to use household expenditure as a proxy for economic circumstances, and analyse if this have any significant effects on healthcare utilisation.

Jacobson (1999) extended Grossman's model into a model in which the family is viewed as the producer of health. In this model, the family has common preferences and the main conclusion was that not only the individual's own income, but the family's combined resources are used in the production of health. Thus, the family will allocate the investments in health capital so that marginal benefits equals marginal net cost of health capital. The most obvious example would be that households with children allocate a larger share of the budget to food compared to households without children. Brady and Barber modelled this already in 1948. A natural parallel to this would be that households with children also would allocate a larger share of the budget to health expenditure. This makes a case for the inclusion of household size in our model.

3. METHODOLOGY

3.1. Source and Description of Data

This study examines the determinants of household expenditure on healthcare in Nigeria using secondary data from the Harmonized Nigeria Living Standard Survey (HNLSS, 2010). The HNLSS is a nationwide survey, covering the 36 States of the federation as well as the Federal Capital Territory (FCT). Both urban and rural areas of all the 774 local government areas (LGA) of the country were included in the survey.

3.2. Sample Design

The sample studied for the HNLSS was designed to have LGA as the reporting domain and also facilitated the provision of estimates at national levels (National, Zonal and State). The sampling frame for all the 774 LGAs in the country used the Enumeration Areas demarcated by the National Population Commission (NPC) for the 2006 Housing and Population Census. The frame was constructed into replicates such that each LGA had 3 replicates and in each replicate there was 10 Enumeration Areas (EAs) serially numbered 01-10. A two-stage sample design was adopted in the survey. EAs constituted the first stage/primary sampling units, while selection of households formed the second stage/secondary or ultimate sampling units. Using both systematic and

multistage sampling techniques, 50 households per LGA and 38,700 households nationally were selected.

3.3. Model Specification

The models that form the basis for this work are the models developed by Becker (1967) and by Behrman, Pollak and Taubman (1982). The former is mostly an individual maximising model and the latter is described in the literature as the 'family' model. Often, both are considered and in fact it may not be possible to distinguish between the two. The Heckman model used is made up of two stages. In the first stage using probit regression model, factors affecting decision to spend or not to spend on health were analysed. In the second stage Ordinary Least Square (OLS) model was used to estimate the magnitude of spending. The model of estimation can be specified as follows:

$$Y_i = \alpha_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \mu$$

In this model, total healthcare expenditure for the household is the dependent variable (Yi) with value of 1 if willing to pay and 0 otherwise. Where X represents the independent variables and is defined as follows: X1 = Sex of the household head (Male = 1, 0 otherwise); X2 = Age of the household head (Yrs); X3 = Household size; X4 = Household structure; X5 = Marital Status; X6 = Zone; X7 = Sector (Urban=1, 0=Rural); X8 = Consultation fees; X9 = Health insurance; X10 = Medicine; X11 = Hospitalization. β1 - β11 represents the coefficient of each of the explanatory variables and μ is the stochastic variable representing all other factors affecting household healthcare expenditure which have not been captured in the explanatory variables. A priori it was expected that the coefficients of the variables will show a positive relationship to household expenditure on health.

4. RESULTS AND DISCUSSION

The socio-economic variables that affect households and household members are discussed in this section. The demographic characteristics of the respondents are presented in Table 4.1, while Table 4.2 shows the regression result.

Table 4.1: Demographic characteristics of the respondents

Measure	Frequency	Percentage (%)	Cumulative frequency
Sex of household head			
Male	28,033	84.92	84.92
Female	4,979	15.08	100.00
Total	33,012	100.00	
Age Group (years)			
<19	87	0.26	0.26
19-33	6,815	20.64	20.90
34-48	11,146	33.76	54.66
49-63	9,105	27.58	82.24

>63	5,859	17.76	100.00
Total	33012		
Size of household			
1-2	8,706	26.37	26.38
3-4	9,272	28.09	54.46
5-6	8,190	24.81	79.27
>6	6,844	20.73	100.00
Total	33,012	100.00	
Household Structure			
Monogamous Male	26,705	80.90	80.90
Polygamous Male	216	0.65	81.55
Single Male	1,112	3.37	84.92
De Facto Female	1,299	3.93	88.85
De Jure Female	3,680	11.15	100.00
Total	33,012	100.00	
Marital Status of Household Head			
Married Monogamous	27,739	84.03	84.03
Married Polygamous	284	0.86	84.89
Living Together	197	0.60	85.49
Divorced/Separated	1,100	3.33	88.82
Widowed	3,691	11.18	100.00
Total	33,012	100.00	
Measure	**Frequency**	**Percentage (%)**	**Cumulative frequency**
Zone			
North-central	5,256	15.92	15.92
North-east	4,784	14.49	30.41
North-west	7,919	23.99	54.40
South-east	4,405	13.34	67.75
South-south	4,782	14.49	82.23
South-west	5,866	17.77	100.00
Total	33,012	100.00	
Sector			
Urban	8,071	24.45	24.45

Rural	24,941	75.55	100.00
Total	33,012	100.00	
Consultation fee (₦)			
<1000	26,269	79.57	79.57
1000-10000	2,782	8.43	88
10001-20000	1,044	3.16	91.16
20001-30000	1,001	3.03	94.19
30001-40000	263	0.80	94.99
>40000	1,653	5.01	100.00
Total	33,012	100.00	
Health Insurance (₦)			
<1000	32,988	99.93	99.93
1000-10000	14	0.04	99.97
10001-20000	6	0.02	99.99
20001-30000	1	0.00	99.99
>30000	3	0.01	100.00
Total	33,012	100.00	
Medicine (₦)			
<1000	21,699	65.73	65.73
1000-10000	2,778	8.41	74.14
10001-20000	3,129	9.48	83.62
20001-30000	1,359	4.12	87.74
30001-40000	955	2.89	90.63
>40000	3,092	9.37	100.00
Total	33,012	100.00	
Measure	**Frequency**	**Percentage (%)**	**Cumulative frequency**
Hospitalization (₦)			
<1000	31,413	95.15	95.15
1000-10000	27	0.08	95.23
10001-20000	142	0.43	95.66
20001-30000	101	0.31	95.97
30001-40000	101	0.31	96.28
>40000	1,228	3.72	100.00
Total	33,012	100.00	

Source: HNLSS (2010)

Table 4.1 shows the sex distribution of the total Household Family Sample in the study area. The male takes about 85% of the respondent while the female takes 15%. This indicates a wide gender population margin between the male and female in the study area. The age of the various household head is an important variable in determining household/family health expenditure. The table below shows that 0.26% of the entire respondent (household heads) belongs to the age group (less than 19), 20.64% belong to the (19-33) age group, while 33.76% belong to the age group (34-48). The retiring age group (49-63) takes about 27.58 percent while the aged group (>63) takes 17.76%. This is an indication that the largest percentage (33.76%) belongs to the economically productive age group which is the independent age group that possesses the necessary strength and agility needed for economic productivity. Also, about 54% of the households have between 1 and 4 members, while 20% have more than six members. The table further shows that most of the sampled households lived in the North-west region (24%). The proportion of household in the north-central, the north-east, the north-west, the south-east, south-south and the south-west was 16%, 14%, 24%, 13%, 14% and 18% respectively.

Table 4.2: Ordinary Least Square Regression Result

Dependent Variable= hltexp

Variable	Coefficient	Std. Err.	t-Statistics	Prob.	[95% Conf. Interval]	
hhsize	213.7499	49.34729	4.33	0.000	117.0274	310.4724
sector	333.9382	277.9189	1.20	0.230	-210.7929	878.6693
hhsex	100.0219	467.1524	0.21	0.830	-815.6136	1015.657
hhagey	8.724958	7.560031	1.15	0.248	-6.092974	23.54289
hlcons	1.178439	.0035133	335.42	0.000	1.171553	1.185325
hlmedc	1.065785	.0023759	448.58	0.000	1.061128	1.070442
hlhospt	.0096095	.0024377	3.94	0.000	.0048315	.0143875
hlinsur	.9989241	.035104	28.46	0.000	.9301191	1.067729
zone	-83.98602	73.71887	-1.14	0.255	-228.4776	60.5056
hhmstat	-82.20045	128.4283	-0.64	0.522	-333.9245	169.5236
cons	698.5859	813.4955	0.86	0.390	-895.8944	2293.066

Source: HNLSS (2010)

The result in Table 4.2 indicates that the main determinants of household spending on health care have a high coefficient of determination. This can be seen from the R-squared and the adjusted R-squared of about 94 percent. The R-squared shows the percentage of variation in the dependent variable that was accounted for by variations in the explanatory variables. The fitness of the regression model is based on its R-squared. Thus the regression model is well-fitted; explaining 94% of the variations in household health expenditure. Out of the ten explanatory variables, five were highly significant and the variables are considered as the main determinants of household expenditures on health care. Also, the coefficient of the constant shows that household health

expenditure will assume a value of 698.6 when all the relevant explanatory variables in the model assume zero value.

Household size (hhsize) is statistically significant and has a high and positive coefficient of 213. This means that household size is positively related to health expenditure. From Table 4.1, considering the fact that household size is positively related to health expenditure, it should be noted that only households having between one to four members spend much on health. The reason is that those households having more than four members have more expenses to cater for compared to those households with not more than four members. Therefore moderate household size contributes more to health expenditure than large household members. This result is in conformity with the past study carried out by Moses (2013), where the effect of the size of household on the choice of healthcare was positive and largely significant. Also, consultation fee (hlcons) was statistically significant and had a positive coefficient of 1.17. This means that consultation fee is directly related to health expenditure that is 1 unit increase in consultation fee will lead to 1.17 unit increase in health expenditure. From Table 4.1, the pattern of distribution by consultation fee shows that about 80% of household member spend less than ₦1,000 on medical consultation while only 5% of household member spend the highest amount of ₦40,000 and above on medical consultation. This means that demand for medical health care is influenced by consultation fee however, only those who can afford to pay consultation fee demand more medical healthcare.

Household medicine (hlmedc) have positive coefficient which is highly significant at 1% critical value. Table 4.1 shows that 66% of household members spent less than ₦1,000 on medication while the highest amount of ₦40,000 and above was spent by 9% of the respondents. This result indicates that it is only those who have the wherewithal that spend on healthcare. Hospitalization (hlhospt) is also significant and has low and positive coefficient of 0.009. This implies that an increase in hospitalization also leads to increase health expenditure but the elasticity is very low. The contribution of hospitalization is not as much as someone might expect; the pattern in Table 4.1 shows that about 95% of household spent less than ₦1,000 on hospitalization while only about 4% of the household spent the highest amount of ₦40,000. Health insurance (hlinsur) has a positive and statistical significant effect on health expenditure. As more households are covered by health insurance such as National Health Insurance Scheme (NHIS), more households spend on health care. Table 4.1 shows that few people are covered by the scheme because only few respondents know the value of the scheme.

Household size was positive and it conforms to expectation. A moderate household size leads to increase in seeking for and spending on healthcare. And from the regression result a unit increase in household size will increase the health expenditure by approximately 214 units. The a priori expectation on consultation fees was negative and does not agree with the regression result. The expectation was that as consultation fees increases household spend less on healthcare and prefer self-treatment. Although the research result was positive but it does not really yield different result from the a priori expectation because only few household members spend more on healthcare. A unit increase in consultation fee will increase the health expenditure by 1.18 units only.

A priori expectation on medicine and hospitalization were also negative but the regression results show positive elasticities. The expectation was that as medicine and hospitalization fees increases people divert to self-medication by spending less on health care but the result proved otherwise. A unit increase in the price of medicine and hospitalization will increase health expenditure by 1.07%

and 0.009% respectively. Also, the result in Table 4.1 is not really encouraging because it showed that only few household that are wealthy spent meaningfully on healthcare. Finally, the research result conforms to the a priori expectation on health insurance, which has a positive relationship with health expenditure. A unit increase in health insurance will lead to approximately a unit increase in health expenditure. By implication, as more households are covered by health insurance, they spend more on healthcare. The low coefficient of 0.99 also indicates that people in Nigeria do not really make use of the existing health insurance scheme.

5. CONCLUSION AND RECOMMENDATIONS

The aim of this study was to examine the pattern of household expenditure on health and to determine the factors influencing health expenditure in Nigeria. Thus, the study relied on Heckman model developed by Becker (1967) and Behrman, Pollak and Taubman (1982) to analyze data from the Harmonized Nigeria Living Standard Survey (2009/2010). Probit regression and Ordinary Least Square methods were used. The result of the study showed that five explanatory variables (household size, consultation fee, health insurance, medicine, hospitalization) positively affected household expenditure on health at 1% level of significance. Spending on health is like spending on other commodities. Households are rational in spending and always try to get maximum satisfaction from their spending. Hence, households maximize utility by spending less on health since the cost of healthcare (for example, consultation fees) is high. Although the Nigerian government is spending on healthcare, it does not really have positive influence on the welfare of the people. The main asset of the poor is their labour, and health services improve productivity of labour and earnings. Thus, poor health reduces a household's capacity to earn income and accumulate wealth by limiting work, raising medical expenses and reducing savings. Therefore, health is key in achieving meaningful growth and economic development but, the situation in Nigeria shows that health is needed most by the people who are unable to pay for it. So, in order to improve the welfare of Nigerians, care should be based on need not on ability to pay. It is therefore the duty of the state to ensure adequate health of its citizen. Based on the findings of this study, the following recommendations are put forward:

The significance of the household size on health expenditure should be considered since it is moderate household size that contributes more to health expenditure. Government as well as non-governmental organisations should sensitize citizens on the need for moderate family size, so that households will be able to cater for their health needs. A moderate family size should be encouraged through awareness programmes and the mass media, so that adequate plan for national welfare especially in terms of healthcare could be made.

Government should reduce the fees charged for consultation, medicine and hospitalization so that more people will have access to modern healthcare rather than resorting to self-medication. Also the significance of health insurance should not be overlooked; the result evidently showed that health insurance has not widely covered Nigerian workers. Majorly, civil servants have access to the NHIS. So, the Nigerian government should make the scheme universal so that all Nigerian citizens will benefit from the scheme. Also creation of awareness and proper information on the scheme is necessary. Finally, to ensure increased utilization and accessibility to health services, budget allocation to health should increase in order to promote broad based economic growth.

Government should subsidize the cost of healthcare by providing health facilities and equipment as well as medication.

The study on the determinant of health expenditure could be extended to the each state or local government area in Nigeria, in order to ascertain the peculiar healthcare needs in the different geographical areas of the country.

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